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ABSTRACT

This report describes a plan for using the multiple intelligences to increase student motivation. The target population consisted of a sixth grade reading class in a rural setting, and second, fourth, and fifth grade students in a pullout ESL (English-as-a-Second-Language) program in an urban setting. The lack of motivation became evident as observed in incomplete assignments, low test scores, and disinterest in subject matter. A review of the literature indicated motivation to learn is a problem nationwide. Students need to be self-motivated since extrinsic rewards may be counter-productive. Traditional teaching methods often do not target individual student learning styles. A review of the solution strategies by knowledgeable others suggested that an emphasis on changing teaching styles can improve motivation. These styles included using cooperative learning and implementing multiple intelligences in the curriculum. De-emphasizing extrinsic rewards such as grades, verbal praise and tangible rewards may foster a natural curiosity for learning. As a result of implementing multiple intelligences and cooperative learning groups, students showed an increased motivation in class work. Use of multiple intelligences improved assignment completion, class participation, and engagement of learners. All students benefited from choosing how they learn. Post intervention data suggest providing student choice. Appendixes contain student motivation and multiple intelligence survey instruments, a cooperative learning behavior checklist, and a homework checklist. (Contains 28 references and 2 tables of data.) (Author/RS)

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IMPROVING STUDENT MOTIVATION THROUGH THE USE OF THE MULTIPLE INTELLIGENCES

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An Action Research Project Submitted to the Graduate Faculty of the

School of Education in Partial Fulfillment of the

Requirements for the Degree of Master of Arts in Teaching and Leadership

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Field-Based Master's Program

Chicago, Illinois

May 2003

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A review of the literature indicated motivation to learn is a problem nationwide. Students need to be self-motivated since extrinsic rewards may be counter- productive. Traditional teaching methods often do not target individual student learning styles.

A review of the solution strategies by knowledgeable others suggested that an emphasis on changing teaching styles can improve motivation. These styles included using cooperative learning and implementing multiple intelligences in the curriculum. De-emphasizing extrinsic rewards such as grades, verbal praise and tangible rewards may foster a natural curiosity for learning.

As a result of implementing multiple intelligences and cooperative learning groups students showed an increased motivation in class work. Use of multiple intelligences improved assignment completion, class participation, and engagement of learners. All students benefited from choosing how they learn. Post intervention data suggest providing student choice.

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CHAPTER 1

PROBLEM STATEMENT AND CONTEXT

General Statement of the Problem

Can intrinsic motivation be taught? The students of the targeted sixth grade class and the fourth and fifth grade ESL classes demonstrated a lack of motivation. This was observed in incomplete or late assignments, lack of class participation, and teacher observation of unengaged learners.

Immediate Problem Context

Site A was a third through sixth grade facility, and Site B was an elementary school that included ESL (English as a Second Language) classes.

Site A

The majority of the students at Site A were Caucasian, 97.9%, with few African Americans or Hispanics, .9% each, and only .2% Asian. The research site had an enrollment of 439 students. District enrollment was 1,499 students.

The attendance rate was 95.3%, slightly higher than the district average of 95.2%. The mobility rate of 11.4% was lower than the district rate of 13.7%. However, the chronic truancy rate was relatively high at 1.7% compared to the district average of .6%.

Even though Site A was a rural community there was a high percentage of low-

income students at 27.3%. Several public housing facilities were located in the community.

The classroom in Site A adequately accommodated the number of students enrolled. The desks were new with separate chairs and could be arranged easily to fit any configuration. There were two windows that looked out towards the front of the school, facing the parking lot and adjacent housing complex. Two marker boards covered the length of the front and side walls. A tack strip ran around the perimeter of the room about six feet from the floor to display student work and hang posters. A computer table stretched across the back of the room and held two computers. One was hooked up to a high-speed Internet connection and networked throughout the building. The other was used primarily with software, since it did not have Internet capabilities and was not connected to a printer. A 55-gallon aquarium on a metal stand housed the class pet, a turtle.

There were five teachers on the sixth grade faculty. Each teacher taught five classes and monitored a study hall daily. Four days out of the week, the teachers had a common planning period for an hour. During this time students attended P.E., music, or band classes. Once a week, half an hour was spent during the planning period for a team meeting attended by all sixth grade teachers and the principal. One day a week students attended art instead of P.E., music, or band. There was only one art teacher, and students attended at different times, which provided a different planning period for each teacher. Class periods were approximately 45 minutes long. Students moved to different classrooms according to subject, although some students had the same teacher more than once a day. Students were assigned to homerooms where they began each day and where

their books and supplies were kept. Lockers were used only for book bags, coats, and P.E. shoes.

The third through fifth grade facility was modern and was built after a referendum was passed in 1995. The old middle school did not pass health, life, and safety codes, and renovation would have been expensive. The middle school and part of the elementary school were combined. The building's highlights included a computer lab, library, science lab, band room, and courtyard with landscaping, and a fishpond. The teachers in this district averaged 16.6 years of experience. The percentage of teachers with a bachelor's degree was 73.2%, and 26.8% had earned a master's degree or above. The average class size at the sixth grade level was 21.2 students. Pupil/teacher ratio in this district was 17.8:1.

The district employed a curriculum director who was in charge of scheduling workshops, ordering materials, and implementing changes. The curriculum director also served as the elementary school principal. A curriculum guide was compiled for each grade level and included the State Learning Standards for each subject as well as assessments for those standards. Included were reading lists for each grade level, although at the sixth grade level this list was outdated. A new reading series was purchased for grades K-6. The series was chosen because it contained materials that incorporated writing, spelling, and grammar skills into the reading program. The basal reader included stories that were taken from novels and covered different genres. Reading books covered three different reading ability levels, but all contained the same targeted vocabulary words and focused on the same reading skills. The teacher's edition included a section on incorporating multiple intelligences into each lesson.

Two years ago the School Improvement Team attended workshops for implementing character education to be taught in the building. The program was based on the word "RESPECT": Responsibility, Etiquette, Safety, Pride, Encouragement, Character, and Teamwork. Assemblies were held each month to kick off a new letter. The discipline system was called the Respect Code, following through with the theme. Students who broke the rules included in the Respect Code received demerits. Incentives were given each quarter for being demerit-free. Some past incentives included roller-skating, attending a disco party, bowling, and tie-dying T-shirts.

Bi-weekly a student from each homeroom was selected by the teacher to be "star student." These students showed character as described by the word of the month. Star students received special treatment, such as breakfast with the principal and their pictures in the local newspaper.

The sixth grade participated in a school-wide reading contest. Using the Accelerated Reading Program, students took computerized tests over books they read within a set amount of time to earn points. Rewards such as popcorn parties, throwing pies at the principal, and participating in an auction for donated items could be earned if enough points were accumulated.

Site B

At Site B the majority of students were Caucasian (63%.) Site B had a higher than district average of Hispanic, (2.1%) and Asian, (4.7%) students. The African American enrollment was 30.1%, which was slightly lower than the district average of 33.8%. Native American enrollment was 0.2%, equal to district average. Total enrollment at this site was 471 students. Total district enrollment was 14,458 students.

Site B had an attendance rate of 95%, which was slightly higher than the district average of 92.1%. Student mobility rate of 29% was lower than the district rate of 32.1%. Chronic truancy was low at 1.5% compared to the district average of 4.1%.

Almost half, 44.4% of the students at Site B could be considered low income. This was below the district rate of 50.1%. There were some students with limited English. Eleven students were enrolled in the ESL program at this site.

The classroom at this site was an area approximately 10 by 20 feet. The room had shelving covering two walls, which limited an already small space. It was shared with the third grade teachers who stored their science and reading materials on the shelving. There was one IBM computer and printer with a high-speed Internet connection. Students often used the computer with ESL software and writing projects. There was one table which students and teacher shared. Five chairs surrounded the table. A white board was attached to a wall. The room had no windows.

The ESL program at this site was a pullout program. Students were mainstreamed into regular classrooms and ESL instructors pulled students from their classes for intensive ESL instruction. Instruction time depended on age and ability of individual students.

Site B was a two-year-old building. The site housed Kindergarten through fifth grade. The average class size was 17.3 students. The school had big, sunny rooms and halls. There were large music and art rooms and a library. The all-purpose room was a gym/cafeteria/auditorium combination with a large stage at one end. On staff were three full-time Reading Recovery teachers, two reading tutors, a LD teacher, speech

pathologist, student assistance specialist, school nurse, music teacher, art teacher, and physical education teacher.

The teacher's average experience was 14.6 years. Forty-six percent of the teachers had earned a master's degree and higher. Pupil/teacher ratio in this district was 17.8:1.

Materials were chosen and ordered by the ESL coordinator and instructors. Instructors chose which materials they felt would work with individual students. The materials chosen covered all grade levels as well as English proficiency levels. Materials that relied heavily on phonics and vocabulary building skills were chosen. New ESL picture dictionaries where ordered for the 2002-2003 school year. The dictionaries were the most used items in the ESL library. Instructors regularly attended workshops to update and share ideas to use in the ESL classroom.

The Surrounding Community

Site A

Site A was located about 20 miles northwest of a midwestern state capital. The population was approximately 2,300. The median home value was $99,100 with 77% of the community being homeowners. Most families either farmed or were employed out of town. The average commuting time was about 25 minutes. Only 4% of work was done at home. The median household income was $37,437. Forty percent of the population had at least a high school diploma. The community did contain some small businesses and tourism was a major industry using local historical sites.

The district was composed of five schools enrolling students from five communities. One elementary school housed kindergarten through fourth grade.

Another elementary school enrolled students in pre-kindergarten through second grades. A structure was built four years ago that contained third through sixth grades. The junior high school and high school were in the same building but had different principals.

Site B

Site B was located in an upper middle class subdivision. Duplexes and apartment houses were nearby. Students were also bused from other parts of the city. This site was located in a Midwestern state capitol with the population of about 113,000. The median home value was $82,350 with 58.2% of the citizens being homeowners. The median household income was $36,582. Eighty-four percent of the population had at least a high school education. A large portion of the population worked for the state government. This helped to keep the local economy fairly stable. The school district had 22 schools, including several charter and magnet schools.

National Context of the Problem

Can students learn to be intrinsically motivated? Outside of teacher rewards such as treats, stickers, or grades, many students seem unmotivated to excel. Intrinsically motivated, life-long learners usually display intellectual curiosity, find learning fun, and after their formal instruction has ended, continue seeking knowledge. This has always been a major goal of education (Small, 1997).

Lack of motivation frustrated both the teachers and students. Luce (2002) reported:

> Over the years, I've watched them (teachers) collapse, falling hard into vinyl seats of the faculty lounge, heard them grunt the 'oh, hell' and 'damn' that came from the experience of working with students who wouldn't learn. I've listened to the

> long sighs of frustration and then the discussion of the 'fact' that students are largely 'unmotivated,' unwilling slugs taking up my time and best performances. (p. 1)

Teachers in today's classrooms share the common experience that many students have lost interest and are turned off by school. Teachers' frustrations with motivating tuned-out students stems from the pressure of time, the large number of needy students, heavy demands from administrators and parents, and other stress-producing situations that occur in the schools (McCombs, 2002).

Lack of motivation affects all levels of learners. Low achievers as well as gifted students are often not learning up to their potential. Unfortunately, many students are not learning. Often students are labeled as at risk, low achievers, or unmotivated learners. Some students tend to perform at a level less than their capabilities because of low expectations on the part of educators, low self-esteem, or society's acceptance of their lower achievement levels. Even the brightest students, sometimes avoid challenges. Many students in gifted and talented classes may be unmotivated learners as well (Chapman, 1993).

Researchers have noted that motivation often declines as students' progress through elementary school. Few educators would dispute the fact that motivation is an important influence on learning. Considerable research has shown a decrease in motivation and performance for many children as they move out of elementary school and into middle school (Eccles & Midgley, 1989). Even the most experienced teachers have trouble motivating students enrolled in their classes. The older the students become, the less engaged they may be in learning (Brewster & Fager, 2000). Learning often

becomes associated with drudgery instead of delight. A large number of students, more than one in four, typically drop out before graduating from high school. Many more are physically present at school but are absent mentally. The experience of learning is not something they fully commit themselves to or appreciate (Lumsden, 1994).

CHAPTER 2

PROBLEM DOCUMENTATION

Evidence of the Problem

The problem in the classrooms at Site A and Site B was the lack of student motivation. Teachers noted that many students turned in late or incomplete homework, did not participate in class, and were not engaged learners.

Through teacher observation, students at both sites had showed apathy towards their homework. When confronted, many students did not seem to consider homework important. Detentions and extra help from teachers did not improve the situation. Student surveys showed all 22 students agreeing or strongly agreeing with the statement, "I turn in my homework on time." However, when midterm report cards were sent home three weeks later, three students were failing classes due to two or more missing assignments. This showed the distorted view students had about their own homework habits. Out of the 22 students, 17 stated they enjoyed learning, 20 reported they did their work without being reminded, 21 used class time wisely, and 16 agreed they liked school (Appendixes A & B). A summary of the student responses is presented in Figure 1.

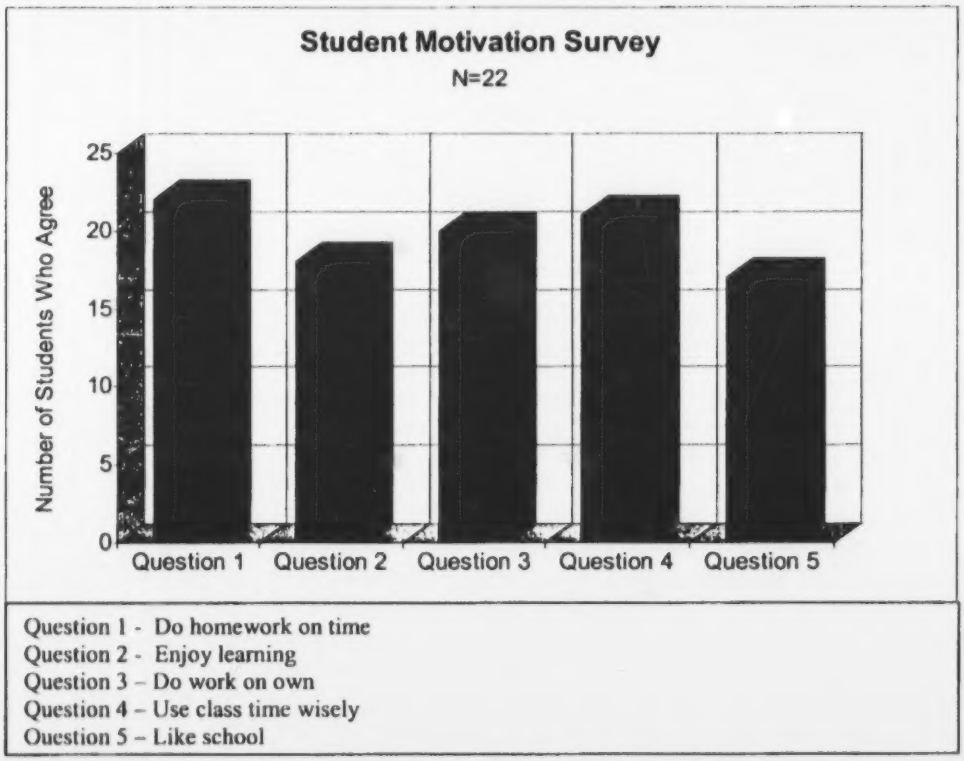

Figure 1. Frequency of responses on the Student Motivation Survey.

Students' lack of participation was indicated by some students' refusal to volunteer information or answers in class discussions or small group settings. Even students who knew the material were reluctant to raise their hands to participate. During cooperative learning activities, some students failed to contribute to the group discussions.

Keeping students on task was a continual struggle. Lack of focus was observed during class time as students got out of seats, teased others, looked around the room or did not follow along with instruction. Directions needed to be constantly repeated. Even

the simple directive of opening a book to a certain page could take more time than needed. These observations indicated that student motivation needed improvement.

Probable Causes

Among the many causes for lack of motivation in the classroom, rewards were too frequently misused, and classroom environments were poor. Middle school has often been known as the period when motivation begins to decline. Midgley (1993) stated the following:

> Often it has been assumed that this decline is largely caused by physiological and psychological changes associated with puberty and therefore somewhat inevitable. This assumption has been challenged, however, by research that demonstrates that the nature of motivational change on entry to middle school depends on characteristics of the learning environment in which students find themselves. (p.1)

The middle school learning environment usually follows a traditional theme. These classrooms have usually been orderly and neat, with chairs all in a row (Dyck, 2002). There have been few changes in classrooms since the 1900s. Many of today's classrooms do not reflect what students' experience at home. Using basal readers and memorizing spelling lists can not compete with talking on cellular telephones and playing video games (Gardner, 2000). During a research project, students and teachers were asked, "What kind of work do you hate to do?" As for activities they disliked, many teachers and students cited work that was repetitive, that required little or no thought, or that was forced on them by others (Robinson, Silver, & Strong, 1995).

Standardized curriculum reinforces the traditional view of learning. Goldblatt (2000) reported:

> Rather than teaching children how to think, traditionalists focus on the mere transfusion of information, embodied in standardized curricula. The telltale signs of this benighted approach are chilling-memory exercises on everything from state capitals and the multiplication tables to vocabulary and the parts of speech. The push for higher standards in American education can only serve to place our children at a still greater distance from true learning. (p.2)

Students, in some classrooms, lack input about their education. Educators often forget the importance of student choices in the learning environment as a motivating force.

When asked, "What motivates the student to perform in school?" It is often forgotten that the most significant motivating force is the students' discovery of their capacity to do successful and good work. How one determines whether a student is doing successful and good work should be a collaborative process of standard-setting. In most educational settings this is not the case. Rather, standards are set outside of students' own sense of performance. The standards are presented to the students as immutable facts, non-negotiable, regardless of students' justifiable reasoning about their own performance (Bellanca, Costa, & Fogarty, 1992).

If students do not fit into one or two learning styles, their abilities to be successful may be compromised. "This is due to the focus in our schools on two intelligences-verbal/linguistic and logical/mathematical. We are not teaching to all of the intelligences, areas in which these students have special abilities" (Chapman, 1993, p. ix).

Deci and Ryan (1985) recognized the self-determination theory. This theory is based on students having three basic needs: a sense of competence, relatedness to others, and autonomy. Deci and Ryan stressed the last of these three needs. "Within the classroom, autonomy needs could be addressed through allowing some student choice and input on classroom decision making" (p.2).

According to Gross-Davis (1993), classroom environment depends on teacher enthusiasm for the subject matter. Some students need the instructors to stimulate them. "Whatever level of motivation your students bring to the classroom will be transformed, for better or worse, by what happens in the classroom" (p. 1).

Another reason for lack of motivation is the misuse of rewards. Most educators agree that children need to be in safe, inviting environments. When teachers use praise to create such environments, the results may be counterproductive (Driscoll & Hitz, 1989). Rewards and punishments have always been used in the traditional classroom to gain control. In an interview with Bafile (2000), Alfie Kohn argued, "Both carrots and sticks can be effective at getting one thing and only one thing: temporary compliance" (p.1). Research findings show that too much extrinsic motivation may result in the opposite effect. Students become reliant on others to set goals and solve problems, hindering their natural ability towards intrinsic motivation. Punishment undermines the value of doing what is right. Others having the control over learning takes the excitement out of discovery. That is the difference between intrinsic and extrinsic motivation (Brandt, 1995; Caine & Caine, 1994; Kohn, 1987). "The domination of ego and extrinsic goals damages our attempt to develop independence of thought" (Bellanca, Costa, & Fogarty, 1992, p.228).

Grades can also be considered a form of rewards and punishment. A's are given to reward students who have mastered items on a test, and F's are used to punish students who have not mastered the materials. "Grades can affect the self-confidence, self-esteem, motivation, and future of a student" (Burke, 1999, p. xii).

Totally eliminating praise may not be a good choice, either. Ignoring some apathetic students could be used as a form of discouragement. Dinkmeyer and Losoncy concluded that recognizing students increases their self-esteem. "If teachers do not provide feedback to an individual who appears to be uninterested, bored, or apathetic, the student could drop through the cracks" (as cited in Burke, 2000, p.182).

In today's society people need to be problem solvers. If students are expected to be life-long learners then they must become intrinsically motivated. Educators must provide students an environment built on intrinsic motivation in which to practice.

CHAPTER 3

REVIEW OF SOLUTION STRATEGIES

Literature Review

In the targeted sites, many students were unmotivated because the curriculum was unappealing. Doing rote assignments, including worksheets, memorization, and pencil-paper tests, bored many students. If teachers made curriculum more interesting, perhaps student motivation would improve.

Three areas target the development of intrinsic motivation. These areas were letting students make more choices and decisions about their education, reducing extrinsic rewards, and improving classroom environment.

According to Chapman (1993), students may capitalize on their strengths and improve on their weaknesses if teachers were aware of instructional strategies which give a greater variety of approaches using the same materials. An example would be allowing students to display their comprehension through a variety of means, such as graphic organizers, oral reporting, or artistically.

Gardner (1991) believed in different learning styles and identified eight intelligences. According to his beliefs, all individuals have a blend of the eight following intelligences: verbal/linguistic, musical/rhythmic, logical/mathematical, visual/spatial,

bodily/kinesthetic, naturalist, intrapersonal, and interpersonal. A students who is verbal/linguistic would be comfortable writing a traditional book report, whereas a musical/rhythmic student might choose to write a rap song about the main character, setting, or plot. A logical/mathematical student would fill out a chart but a visual/spatial student would paint the elements of fiction. A naturalist student might choose a book about animals. Bodily/kinesthetic students could perform a skit based on an excerpt of a book. Interpersonal students would start a book club and intrapersonal students would write a journal entry applying the book's theme to their lives.

Chapman (1993) stated that each person is born with all eight intelligences, but because of cultural differences some intelligences develop more than others do. Students should become familiar with each intelligence, recognizing their strengths and weaknesses. Students learn more effectively if disciplines are used in many different ways and if teachers used a variety of assessments. If the multiple intelligences approach to learning is used, content areas may become more meaningful and valuable for students (Gross-Davis, 1993). Gardner (1983) suggested there are many ways to motivate children, depending on how they learn. More meaningful material can spark students' natural curiosity about the world around them (McCombs, 2002; Chapman, 1993).

In order to make sure curiosity is sparked, Robinson, Silver, & Strong (1995) suggested that two things need to be accomplished: make learning a mystery to be solved by the students, and have content relate to their lives. Applying prior knowledge in a new situation to problem solve could be more compelling to students than giving them answers.

Students become bored if an instructor becomes apathetic with the subject matter, when students receive work that is not meaningful to them, or if curriculum lacks variety. Gross-Davis (1993) concluded an instructor's enthusiasm is an important factor in student motivation. An instructor's passion for material may inspire student interest. On the other hand, when a teacher follows a textbook without any deviation, teacher and students may become uninterested and the content may become monotonous.

Students need work that will give them opportunities to interact with others. Students who work with others often become more involved and energetic (Robinson, Silver & Strong, 1995; Brewster & Fager, 2000). Cooperative learning promotes intrinsic motivation. Students strive to learn, grow, develop, and succeed. Learning becomes the goal. Contributing to the common task increases student interest (Johnson & Johnson, 1989). In order to develop cooperative learning skills, specific lessons such as cooperative roles, team building, and finding consensus need to be taught. These skills give students a chance to become more engaged learners.

Students need to be included in educational decisions. One example would be to give students choices on how to present material. If a book report is assigned, students could choose between building a diorama, making a video, or giving on oral report (Anderman & Midgley, 1998). Another way to give students more autonomy would be to minimize adult supervision when working within groups. Students should be taught how to evaluate their own progress and monitor their own behavior (Brewster & Fager, 2000). According to Temple and Rodero (as cited in Abdullah, 2001), students should work with teachers to do such things as develop criteria and establish deadlines for assignments, keep journals, and reflect on their progress. McCombs (2002) stated that

students should have input in school and classroom rules and the consequences of breaking those rules. As students become better decision-makers and self-regulators, the teachers' role will change from maintaining control to supporting learning. As teachers become less controlling, the classroom atmosphere usually becomes more open and positive. Researchers suggested that moving from reward and punishment to actively involving students in classroom learning may promote student motivation (Lumsden, 1994). Teachers must clearly state expectations and give specific short-term goals to help students achieve a high level of performance and behavior (Robinson, Silver & Strong, 1995; Lumsden, 1994; Brewster & Fager, 2000). Abdullah (2001) stated it is better to achieve fewer objectives that are more meaningful to the students than to fulfill every objective meaningful to the teacher. Creating more achievable outcomes can keep learners from being discouraged.

The overuse of extrinsic rewards may stifle intrinsic motivation. Examples of extrinsic rewards can be stickers, praise, or grades. Rewards such as these should be given only when they are clearly deserved and are most effective when they are related to the task. For example, if students have an assignment to read a number of books, the appropriate reward may be to choose new books to be purchased for the school library (Lumsden, 1994; Brewster & Fager, 2000).

Researchers suggested that there are effective ways to praise students to avoid competition or comparison with others. Praise should not be used when focused on students' intelligence. Teachers instead need to praise their efforts and strategies. Emphasis placed on intelligence can make students become overly concerned about how smart they are or worry about failing (Dweck, 2000). Praise should be specific, sincere,

given privately, focus on effort and improvement, and allow students to work towards self-satisfaction.

Researchers also suggested that teachers need clear expectations for performance and behavior. Students need to be aware of how their work is evaluated. Teachers need to evaluate student work as quickly as possible and make feedback positive, clear, and understandable. Teachers should let students know how they can improve their performance and give students adequate time to complete each assignment (Gross-Davis, 1993; Brewster & Fager, 2000). These expectations should also include out-of-class and homework assignments.

Students' perceptions of their educational experiences can influence their motivation. According to Graham (as cited in Anderman & Midgley, 1998) students can quickly lose hope if they feel their poor academic performance is caused by things out of their control. They are more persistent, however, if they feel poor performance is attributed to lack of skills or poor study habits. Many teachers, therefore, unknowingly communicate expectations and may sabotage student motivation.

Students who have become discouraged can go through a process called attribution retraining. Attribution retraining involves socialization, modeling, and practice exercises. Students learn to concentrate on tasks rather than worry about failing. They are taught to retrace their steps to find mistakes or try a new approach to solve a problem instead of becoming frustrated and giving up.

Lastly, they need to attribute failures to lack of effort, information or an ineffective strategy rather than lack of ability (Brophy, as cited by Lumsden, 1994).

As a result of reviewing literature, the teachers selected the following strategies to be used in the intervention: incorporating multiple intelligences into the lesson plans, utilizing cooperative learning group activities, and giving students opportunities to make decisions about the curriculum and assessment.

Project Objectives and Processes

As a result of the increased instructional emphasis on the use of multiple intelligences during the period of September 2002 and December 2002, the targeted sixth grade reading class and intermediate ESL students will demonstrate an improved interest in subject material and classroom performance as measured by checklists, teacher observation, and student surveys.

To accomplish this objective, the following processes are necessary:

1. Students will be introduced to the cooperative learning model including cooperative roles, team building, and finding consensus.
2. Teacher will reintroduce as necessary any cooperative learning skills that need improvement.
3. Student assignments will incorporate the multiple intelligences giving them choices of how they can be completed to reflect individual strengths and interests.
4. A variety of assessments including checklists and student surveys will measure the interventions.
5. Students will be given decision-making opportunities.

Project Action Plan

Weeks 1-3

- Parent will be contacted either be person or by phone to receive permission for the action research project.
- Student multiple intelligence surveys will be completed to target how the students learn.
- Student motivation surveys will be completed as a pre-intervention assessment.
- Students will be introduced to the cooperative learning model including cooperative roles, team building, and finding consensus.
- The teacher will complete homework checklist at the end of each week.
- The teacher will complete cooperative learning checklist each week to assess behavior in study groups.

Weeks 4-15

- Teacher will continue to record missing or late assignments in the homework checklist.
- Teacher will continue to record behaviors on the cooperative learning checklist.
- Teacher will reintroduce any cooperative learning skills that need improvement.
- Student assignments will incorporate the multiple intelligences giving them choices of how they can be completed to reflect individual strengths and interests.

Weeks 16

- Student motivation surveys will be re-administered.

Methods of Assessment

In order to assess the effects of the intervention, student pre-surveys and post-surveys will be compared. In addition teacher checklists will reflect weekly progress. Motivation will be assessed through teacher observation and homework completion recorded on checklists.

CHAPTER 4

PROJECT RESULTS

Historical Description of the Intervention

The objective of this project was to improve student motivation. The implementation of multiple intelligences and cooperative learning groups was chosen to accomplish this task.

Students were given multiple intelligence surveys to discover their learning styles. The questions were used to determine how they worked in groups, if they prefer oral or written presentations, whether they were musical, artistic or enjoyed working with charts, maps, or numbers, if they were an introspective person, did they enjoy being physically active and whether they like being in nature. This survey was adapted for ESL students at Site B. (Appendixes C & D) Following each survey each question was discussed and correlated to a multiple intelligence. Students became more aware of which intelligences were their strongest and which were their weakest.

During week one, students were given a motivation survey. The questions asked were about students' preferences about school and homework.

In week two researchers introduced cooperative learning roles and expectations. This was accomplished by providing cards with individual roles and the tasks assigned to

each role. The students wore role cards around their necks. The cards were labeled team leader, recorder, or checker. By the end of week three students understood the requirements of each role. Activities were performed to encourage team building and reaching consensus. The researchers completed checklists to monitor how students participated in discussion and stayed on task (Appendix E). Researchers completed homework checklists at the end of each week to monitor assignment completion (Appendix F).

During week four through fifteen students at Site A used learning centers that were based on the multiple intelligences. Once a week students completed assignments in the center of their choosing. The researcher monitored students' behaviors by using the Cooperative Learning Behavior Checklist. At Site B students were given choices between two multiple intelligence based lessons. Each week new choices were given. A Cooperative Learning Behavior Checklist was also used at this site to monitor students' behavior. During this time researchers continued to reinforce cooperative behavior and expectations.

Students selected activities such as designing a three dimensional scene depicting the characters and setting of a book they read (visual/spatial) or using a Venn diagram (logical/mathematical) to compare story characters. Students chose to perform a rap song about the traits of the characters in a story (musical). Students created and performed a skit about the sequence of events in a story (bodily/kinesthetic). Students used portfolios to collect samples of work and rubrics finished during these lessons.

During week sixteen motivation surveys were re-administered to see if preferences had changed. Data were collected for comparison to the answers given during week one.

Presentation and Analysis of Results

In order to improve student motivation, teachers used multiple intelligence lessons and cooperative learning groups to vary the presentation of materials. These strategies were used to make lessons more appealing to students.

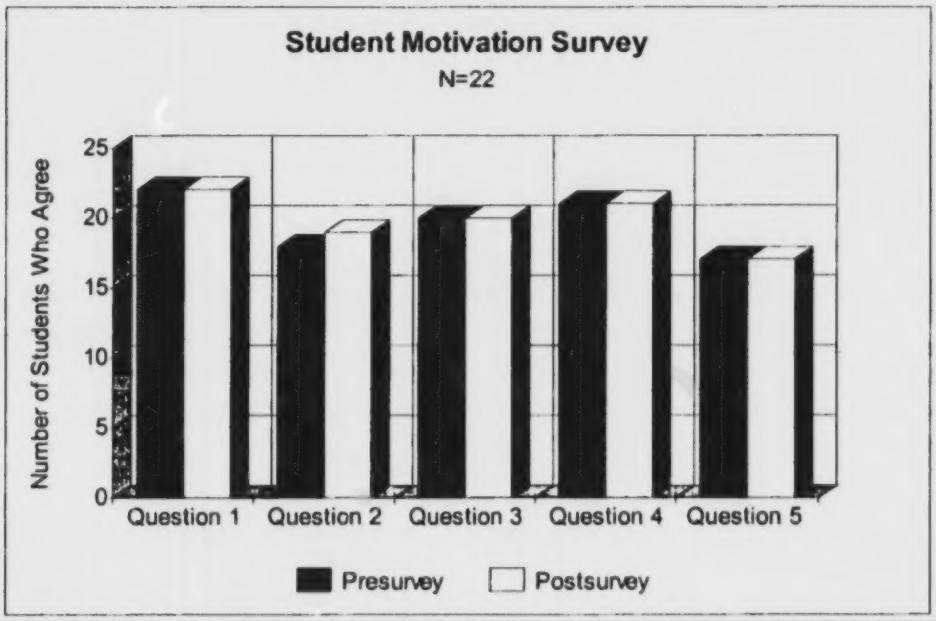

Figure 2. Comparison of the answers given by students before and after research.

Prior to implementations of multiple intelligence lessons, motivational surveys showed 22 students all agreed they did their homework on time. Eighteen students attested to enjoying learning. Twenty students indicated they did their homework without being reminded. Twenty-one said they used class time wisely, and seventeen liked school.

Post research results showed no change in beliefs except an increase of one on question number two. One student who did not enjoy learning before indicated on the post survey that he/she did.

The cooperative learning behavior checklist showed a trend at Site A. Students were more likely to participate and stay on task when they were able to choose their favorite lesson out of the many multiple intelligence lessons provided. For example, if students' first and second choices were taken they were less likely to put forth their full effort. At Site B students were consistently on task and participating in discussion when multiple intelligence lessons were provided. The homework checklist showed all multiple intelligence work was completed on time.

Through teacher observation and reflections, researchers at both Site A and B saw improvement in student interest in subject material. For example, Site A students would be concerned if something would interrupt the multiple intelligence lessons even if the interruption was something they normally would look forward to. Students would worry that an assembly or a day off school would cancel the lesson. Students even talked about the lessons at home as noted by parent comments. At Site B students inquired about future multiple intelligence lessons. They showed more excitement on the days multiple intelligence lessons were given.

Conclusions and Recommendations

Based on data gathered students showed an increased motivation in class work. The researchers concluded that lessons including the multiple intelligences could improve assignment completion, class participation, and engagement of learners. Research showed that enthusiasm was improved during multiple intelligence lessons. However, this enthusiasm did not necessarily transfer to other lessons. Further research could show how to use multiple intelligences in all aspects of learning. Even though multiple intelligence lessons were inserted into the curriculum, they did not entirely replace direct instruction. Multiple intelligences activities were mostly used to reinforce previously taught lessons.

The homework checklist used to collect data was ineffective. Multiple intelligence lessons were done entirely in class in cooperative learning groups. Since no lessons were assigned as homework there were no late assignments. Students continued to miss homework in other areas but this was not reported since it had no bearing on the research. Since neither researcher taught in a self-contained classroom there was no control over lessons students were assigned elsewhere.

Even though the post survey results were almost identical to the pre survey results, researchers considered it growth. It was expected that the post survey show a decline in motivation because the school year was not fresh, new, and exciting anymore. According to the surveys, school was just as intriguing after sixteen weeks as it was on the first days after summer break.

As a modification to the research data collection, student reflection could have been added after each lesson. This would more accurately depict students' feelings about

lessons as opposed to school in general. The student motivation survey was too general and results could have been influenced by outside sources. For example, students could have agreed with the statement "I like school" because their home life was dysfunctional.

Upon reflection the researchers concluded incorporating multiple intelligences strategies into lessons improves motivation. All students benefited from choosing how they learn. Researchers found it refreshing that students were more enthusiastic about coming to class.

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Appendix A

Student Motivation Survey
Site A

Please do not write your name on this paper.

Age of student_____ Grade level_____

Strongly Agree	Agree	Disagree	Strongly Disagree
SA	A	D	SD

1. I turn my homework in on time.

SA A D SD

2. I enjoy learning.

SA A D SD

3. I do my homework without being reminded.

SA A D SD

4. I use my class time wisely.

SA A D SD

5. I like school.

SA A D SD

What is you favorite subject?_____

List things you like about this subject

Tell about a favorite project you have done for school.

Appendix B

Student Motivation Survey
Site B

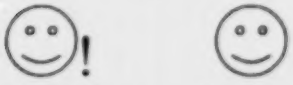
Please do not put your name on the paper.

How old are you?_____ Grade level_____

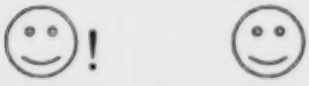
Yes Yes Yes = Yes= No= No,No,No=

1. I get my homework done.

2. I like learning new things.

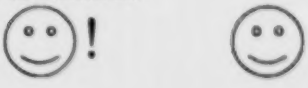


3. I do my homework without being reminded.



4. I work very hard in English class.

5. I like school.



What is your favorite subject in school?_____

List things you like about this subject.

Tell about a favorite project you have done in school.

Appendix C

Multiple Intelligences Survey
Site A

Name:_____

SA = Strongly Agree A = Agree D = Disagree SD = Strongly Disagree

1. I like working in groups.

SA A D SD

2. I would rather give an oral presentation than a written report.

SA A D SD

3. I enjoy music

SA A D SD

4. I enjoy working with charts, maps and numbers.

SA A D SD

5. At recess I would rather sit with my friend and talk than run and play.

SA A D SD

6. I enjoy drawing

SA A D SD

7. I enjoy being outside better than inside.

SA A D SD

Appendix D

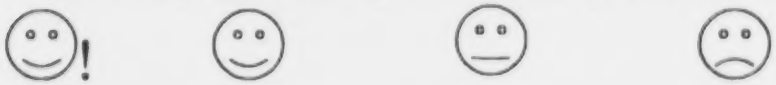
Multiple Intelligences Survey
Site B

Name_____

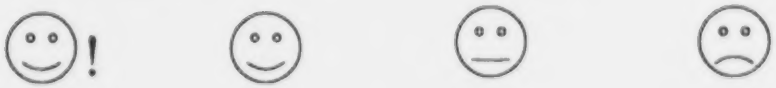
Yes Yes Yes = Yes= No= No,No,No=

1. I like working with other students.

2. I like telling about something better than writing something.

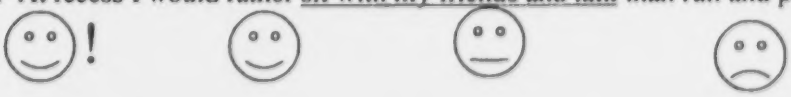


3. I like music.

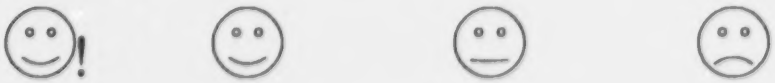


4. I like working with charts, maps, and numbers.

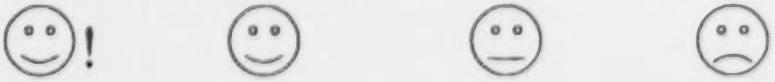
5. At recess I would rather sit with my friends and talk than run and play.



6. I like to draw.



7. I like being outside better than inside.



Appendix E

Cooperative Learning Behavior Checklist

DATE NAME	P	T	P	T	P	T	P	T	P	T	P	T

P = PARTICIPATES IN DISCUSSION
T= STAYS ON TASK

KEY: X = evidence of action
/ = some evidence of action
(Blank) = no evidence of action

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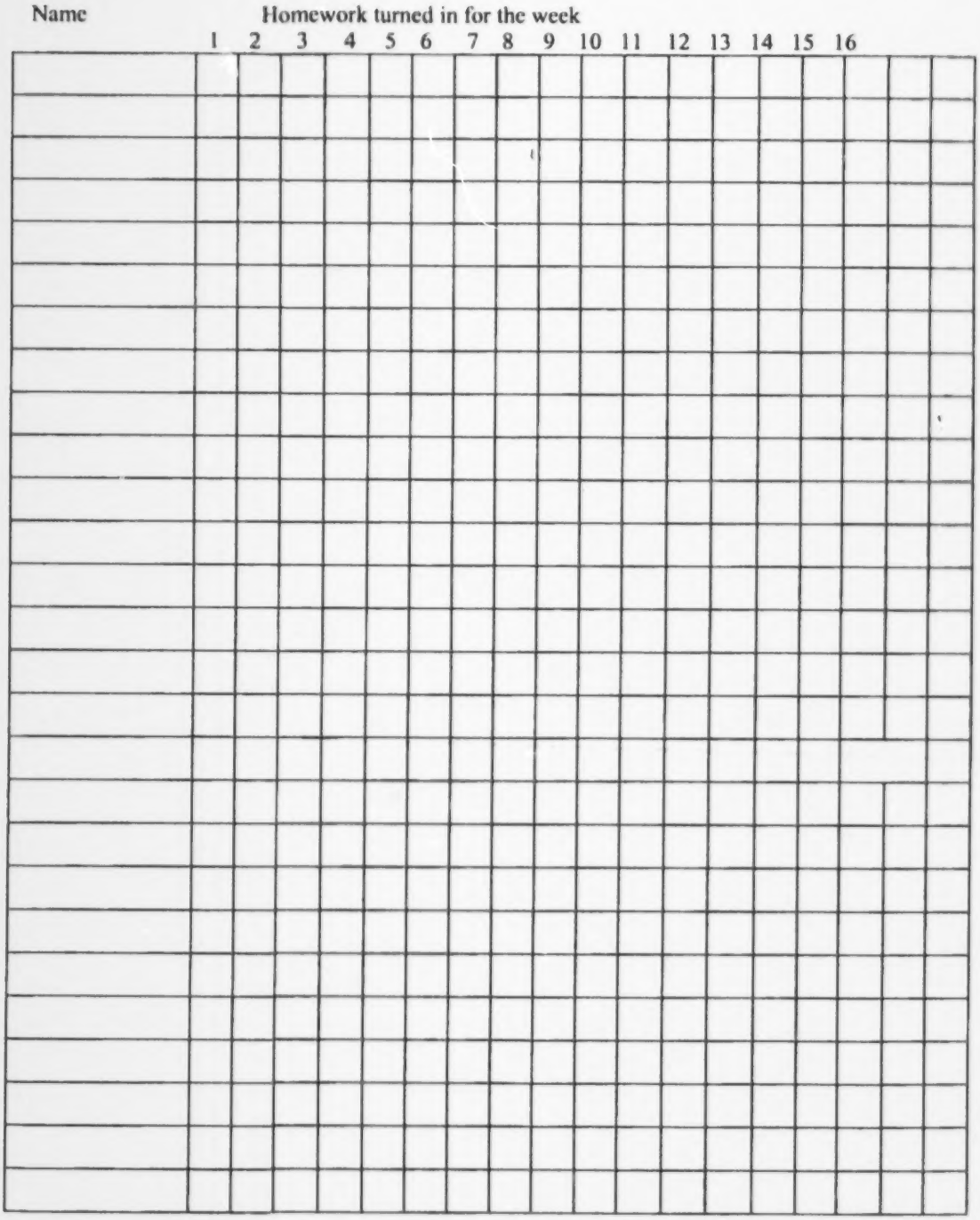
Appendix F



+ turned in all homework for the week on time

O missing or late homework for the week

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